PATENT

REMARKS

This paper is responsive to the Non-Final Office Action dated November 21, 2003. Claims 1 – 41 were examined. Claims 1 – 41 were rejected. Claim 38 has been amended to correct grammar, and for no other reason substantially related to patentability and not to overcome any art. Applicant respectfully traverses all rejections.

Preliminary Matters

The Office Action indicates receipt of the replacement sheets with formal drawings submitted August 25, 2003, but there is no indication of whether the Examiner accepts or objects to the drawings. Applicant respectfully requests that acceptance of the aforementioned drawings be indicated in the next action.

Rejections under 35 U.S.C. §102(e)

The Office Action rejects claims 1, 2, 6, 10, 13, 15 – 17, 24 – 29, and 36 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,094,657, granted to Hailpern et al. ("*Hailpern*"). Applicant respectfully traverses all of these rejections.

In addressing the §102 rejection, several initial points are relevant:

1. Each of the rejected independent claims recite *at least one limitation* not disclosed or suggested by *Hailpern*. As a fundamental matter, a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference" (MPEP 2131.01, *quoting* <u>Verdegaal Bros. v. Union Oil Co. of California</u>, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)). For this reason alone, independent claims 1, 17, 22, 24 and 27, together with all claims dependent therefrom, are all allowable. Details are provided below.

2. In the present rejections, despite apparent specificity of reference to *Hailpern*, specific limitations of the claims are simply absent from the relied upon reference, *Hailpern*. With all due respect, the Office has grossly mischaracterized the scope and content of *Hailpern* in an attempt to dispose of applicant's claim limitations. In this regard, the Office's rejections are simply unsustainable. Details are provided below.

3. Furthermore, for other limitations of Applicant's claims, no attempt has even been made to identify anticipatory disclosure. The Office has not identified or even argued that some elements are anticipated by *Hailpern*. The Office has simply ignored these elements, even to the extent of failing to explain how and why independent claim 24 has been rejected.

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Hailpern does not disclose "validating"

Turning now to the specifics of the present rejection(s), Applicant notes that the Office Action cites sections of *Hailpern* that refer to HTTP requests and to the HTTP 1.1 specification. In particular, the Office states:

> Hailpern et al discloses validating a request message against a predefined request message specification *(citing* col. 4, lines 61-67).

The Office does nothing more than refer to a section of *Hailpern* that refers to the HTTP 1.1 specification.

While HTTP requests may typically conform to a specification (e.g., HTTP 1.1), there is simply nothing in *Hailpern* that discloses or suggests **validating**, as in Applicant's claim 1 language, "validating a request message encoded in a structured request language against a predefined request message specification therefor" or other corresponding language (e.g., "validating," or "validates") in others of the rejected claims. For this reason alone, independent claims 1, 17, 22, 24 and 27, together with claims dependent therefrom, are all allowable.

Hailpern does not disclose "transmitting a validated request message across the security barrier"

The Office Action cites to sections of *Hailpern* that describe operation of server logic including a handler for received request messages. Unfortunately, the Office seems to misunderstand the cited sections. The Office states:

> Hailpern et al discloses transmitting the validated request message *(citing* col. 8, lines 24-63).

The Office is, at best, misinformed.

First off, as previously established, there is no **validated** request message. Second, the relied upon portion of *Hailpern* does not **transmit** a request message, validated or otherwise. Instead, it concerns actions performed on receipt of a request message by an HTTP request handler. Third, the Office conveniently ignores the rest of the claim language. Applicant's claim 1 actually recites "transmitting the validated request message **across the**

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`security barrier`". Neither *Hailpern* nor any of the other art of record, discloses or suggests a security barrier employed as claimed.

So to recap, the Office relies upon disclosure devoid of *validation, transmission* and a *security barrier* to dispose of Applicant's claim language. While the other rejected claims are of substantially differing scope, nothing in *Hailpern* discloses or suggests "`transmitting`" or "`forwarding`" a "`validated request message`" or "`validated access request`" of any sort across a "`security barrier`." For this reason alone, independent claims 1, 17, 22, 24 and 27, together with claims dependent therefrom, are all allowable.

Additional claim elements simply not disclosed

Ample grounds have been presented to support withdrawal of the rejections, however, at least the following additional assertions must be challenged.

The Office Action incorrectly cites to the previously reviewed sections of *Hailpern* that describe operation of server logic including a handler for received request messages for two additional aspects of Applicant's claim 1 language. In particular, the Office states:

> `Hailpern et al discloses validating a response message against a`
> `predefined response message specification` (*citing* col. 8, lines 24-63).

and:

> `Hailpern et al discloses that the response message corresponds to the`
> `validated request` (*again citing* col. 8, lines 24-63).

and finally:

> `Hailpern et al discloses transmitting the validated response` (*citing*
> col. 5, lines 16-25).

As before, the Office is misinformed. Despite the Office's assertion to the contrary, there is simply no disclosure or suggestion of **validating**, of **transmitting** of a validated response, or of transmitting of a validated response **across a security barrier**. As for the assertion that *Hailpern* discloses correspondence between a response message and a validated request, it is simply not there.

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The Office also ignores the following from Applicant's claim 17: "**predefining a request message specification** corresponding to a structured request language", and similar language in Applicant's claim 20. *Hailpern* does not disclose or suggest predefining a request message specification and the Office does not even attempt to address "predefining a request message specification" as claimed.

Additional claims

For completeness, Applicant reviews language of independent claim 24 that has simply been ignored. The Office identifies claim 24 as being rejected under §102(a), and identifies *Hailpern*. However, the Office does not provide any explanation, reasoning, or even a citation as a basis for rejecting claim 24, thus not providing any basis to understand the rejection or respond to the rejection. Claim 24 is as follows:

```
An information security system comprising:
security barrier;
a proxy for an information resource, the proxy and the information
        resource on opposing first and second sides, respectively, of the
        security barrier;
a data broker on the first side of the security barrier, wherein, in
        response to an access request targeting the information resource,
        the data broker validates a request message encoded in a
        structured request language against a predefined request message
        specification therefor and forwards only validated request
        messages across the security barrier.
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The Office does not identify any reference that discloses interaction between an information resource proxy, a security barrier, and a data broker, much less any reference that identifies the elements of claim 24. The Office Action and the relied upon prior art are void of any the elements of claim 24.

With regard to claim 2, *Hailpern* does not disclose or suggest "**the request and response message specifications are predefined in accordance with valid request and response message constraints specific to an information resource.**" The Office does nothing more than recite Applicant's claim language and refer to previous

arguments. There is no basis for the rejection. Applicant respectfully requests the Office identify the section of *Hailpern* that is the basis for the rejection of claim 2.

With regard to claim 10, the Office cites a section of *Hailpern* that discloses a server that invokes an HTTP request handler (col. 8, lines 24 – 38) and that discloses the server invoking compound document request handlers updating a compound document database (col. 8, lines 39 – 63). Nothing in *Hailpern* discloses or suggests "wherein the request and the response message validatings **are respectively performed at first and second secure data brokers on opposing sides of the security barrier;** and wherein the validated request and response message **transmissions are between the first and second secure data brokers**" as in claim 10.

With regard to claim 25, the Office cites a section of *Hailpern* that discloses META-tags and the Recreational Software Advisory Council (RSAC) rating system. Neither the cited section nor any other section of *Hailpern* discloses or suggests "**a second data broker on the second side of the security barrier,** wherein, in response to an access targeting the information resource, the second data broker validates a response message against a predefined response message specification and **forwards only validated response messages across the security barrier**" as in claim 25.

Hailpern does not disclose or suggest any of Applicant's claims. For at least the reasons given above, Applicant respectfully submits that Applicant's independent claims 1, 17, 24, and 27 are allowable over the indicated prior art. The claims 2 – 16, 18 – 21, 25 – 26, 28 – 29, and 36 – 41 depend on corresponding ones of the above allowable independent claims and are allowable at least for the reasons given above.

Rejections under 35 U.S.C. §103(a)

For completeness, Applicant traverses the §103 rejections, including those for independent claim 30.

The Office Action rejects claim 3 under 35 U.S.C. §103(a) as being unpatentable over *Hailpern* in view of "Applied Cryptography" by Bruce Schneier ("*Schneier*"). The Office Action rejects claims 4, 5, 7 – 9, 14, and 18 – 23, 37, and 39 – 41 under 35 U.S.C. §103(a) as

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being unpatentable over *Hailpern* in view of U.S. Patent No. 5,870,549, granted to Bobo II ("*Bobo II*"). The Office Action rejects dependent claims 11 and 12 under 35 U.S.C. §103(a) as being unpatentable over *Hailpern* in view of U.S. Patent No. 5,905,856, granted to Ottensooser ("*Ottensooser*"). The Office Action rejects claims 30 – 33, and 35 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 5,710,889, granted to Clark, et al. ("*Clark*") in view of U.S. Patent No. 5,602,918, granted to Chen, et al. ("*Chen*"). The Office Action also rejects claim 34 under 35 U.S.C. §103(a) as being unpatentable over *Clark* in view of *Chen*, and further in view of *Bobo II*. Applicant respectfully traverses all of these rejections.

The Office has mischaracterized the references relied upon for its §103 rejections, and as with the §102 rejections makes erroneous assumptions to provide a basis for the rejections, for those few rejections that provide a basis.

Hailpern and Bobo II

As previously stated, *Hailpern* does not disclose or suggest Applicant's claimed invention. The combination of *Hailpern* and *Bobo II* still does not disclose or suggest Applicant's claimed invention. The Office characterizes *Bobo II* as disclosing "translation of messages into XML format (Office Action, page 5), and proposes utilization of *Bobo II* as disclosing formatting request and response messages in a structured language corresponding to a message specification. However, such a characterization of *Bobo II* exceeds the actual disclosure of *Bobo II*. The *Bobo II* reference discloses a message storage and deliver system that translates voice messages and facsimiles into hypertext markup language files (Abstract) or XML. The Office Action assumes that translating voice messages and facsimiles into a markup language format is formatting a response or request in accordance with a structured request or response language. *Bobo II* discloses receiving requests for files or messages, but never describes or suggests formatting the requests in accordance with a structured request language. Even if translating and formatting were equivalent, which they are not, *Bobo II* never discloses translating requests. Attempting to equate translating and formatting as done by the Office suggests that *Bobo II* could translate its requests as it translates voice messages and facsimile data, but such a translation of requests would cause an unintended result. More specifically, *Bobo II* does not teach or suggest "formatting a response to an access request targeting the information resource, the formatted response being in

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accordance with the structured response language" as found in independent claim 22 and formatting the request message in a structured language corresponding to the request message specification as in claims 7 – 9 and 20.

As discussed above for claim 17, *Hailpern* does not disclose or suggest predefining a message specification. *Bobo II* also does not disclose or suggest "predefining a response message specification corresponding to a structured response language" as in claim 20. Hence, the combination of *Hailpern* and *Bobo II* does not disclose or suggest Applicant's claim 20.

Hailpern and Ottensooser

The Office cites sections of the *Ottensooser* reference that disclose a script definition language (SDL) parser and a Plan parser (col. 7, lines 53 – 63). The *Ottensooser* reference discloses the SDL parser loading System Static Tables and checking a script definition file before loading Script Definition Tables to be used by the Plan parser (col. 7, lines 54 – 55). The Plan parser of the *Ottensooser* reference uses the Script Definition Tables and the System Static Tables to validate a plan (col. 7, lines 59 – 61). The *Ottensooser* reference does not teach or suggest "parsing the request message using Data Type Definitions (DTDs) encoding a hierarchy of valid tag-value pairs in accordance with syntax of a valid request message; and if the request message is not successfully parsed, forwarding a response message without transmission of the request message across the security barrier" as found in claim 11 and "parsing the response message using Data Type Definitions (DTDs) encoding a hierarchy of tag-value pairs in accordance with syntax of a valid response message" as found in claim 12. In addition, claims 11 and 12 are dependent on the allowable independent claim 1.

Clark and Chen

The *Clark* reference discloses "an interface device for electronically integrating a plurality of financial services provided at different geographical locations…and delivering such services directly to a customer facility at any time requested by the customer" (Abstract). The *Clark* reference discloses the interface device processing transaction instruction messages (TI) from customers. "The header and main body portions of the messages are in a structured format,

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either adhering to industry standards (e.g., message formatting standards managed by the Society for Worldwide Interbank Financial Telecommunications ("S.W.I.F.T.")), or meeting administrative requirements of the delivery system" (col. 7, line 63 – col. 8, line 2). The global interface device of the *Clark* reference "receives the message…and then validates the construction of the message…." (col. 10, lines 19 – 24).

However, the *Clark* reference does not teach or suggest "`parser code including instructions executable as a first instance thereof to validate the received access requests against the predefined request message specification`" as found in claim 30. The TI messages disclosed in the *Clark* reference are specifically described as containing "a series of defined data elements that identify the customer, user, location, branch, account, message type, date, time, and so forth" (col. 7, lines 56 – 58). An access request is not a TI message, although an access request can contain a TI message. Even if a TI message is similar to an access request, which it is not, the functionality performed by the global interface device as disclosed in the *Clark* reference is not similar to the functionality claimed by Applicant.

In addition to not teaching or suggesting Applicant's above quoted claim limitation, the Office admits that the *Clark* reference does not teach or suggest "`data broker code including instructions executable as a first instance thereof to… forward validated ones of the access requests across the security barrier toward the information resource`" as found in claim 30. The Office attempts to combine *Clark* with *Chen* to overcome this deficiency.

The Office Action attempts to achieve Applicant's claimed invention by modifying *Clark* in view of *Chen* in a conclusive fashion. The Office assumes the obviousness of adding a firewall between "the first network server and the information source" (Office Action, page 8). The Office identifies *Clark*'s repository as the information source. Without guidance from the Office, Applicant presumes that the Office considers *Clark*'s communication server of Figure 29 as the first network server. *Clark*'s repository is located between two global telecommunication's networks in Figures 1 and 29. Inserting a firewall between *Clark*'s repository and communication server does not disclose or suggest Applicant's above quoted claim limitations. Furthermore, there is no suggestion or motivation to modify or combine *Clark*

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with *Chen*. The Office offers, as a basis for inserting a firewall in *Clark*, a brief statement from *Chen*'s background that includes the term firewall.

With regard to claim 34, the Office Action combines *Bobo II* with the *Clark-Chen* combination in an attempt to achieve Applicant's claim 34. As already stated, the *Clark-Chen* combination does not disclose or suggest Applicant's claim 30, nor any other claim. As explained above with reference to claims 7 – 9 and 20, *Bobo II* does not disclose or suggest "instructions executable to format the access requests in accordance with the structured language corresponding to the predefined request message specification" as in claim 34.

Neither *Hailpern*, *Schneier*, *Clark*, *Ottensooser*, *Chen*, nor *Bobo II*, standing alone or in combination, teach or suggest Applicant's claimed invention. For at least the reasons stated above, Applicant respectfully submits that Applicant's independent claims 22 and 30 and dependents therefrom are also allowable. Applicant respectfully submits that all of the dependent claims are allowable for at least the reasons discussed above.

Conclusion

Independent claims 1, 17, 22, 24 and 27, together with claims dependent therefrom, are all allowable over *Hailpern* and the other art of record. Applicant respectfully requests that the present rejections be immediately withdrawn and that all claims be indicated as allowable. Given the substantial disconnect between the Office's assertions as to content of relied upon references and actual content thereof, it is simply impractical to challenge each mischaracterization. Accordingly, Applicant does not acquiesce in the Office's characterization of the relied upon references. Instead, Applicant points to the mischaracterizations made in support of the Office's §102 rejections as suggestive of a general lack of correspondence between asserted and actual disclosure.

In summary, claims 1 – 41 are in the case. All claims are believed to be allowable over the art of record, and a Notice of Allowance to that effect is respectfully solicited. Nonetheless, if any issues remain that could be more efficiently handled by telephone, the Examiner is requested to call the undersigned at the number listed below.

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Respectfully submitted,

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